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SYNONYMIC DATA AND TWO NEW GENERA OF SHORE-BUGS (HEMIPTERA: SALDIDAE)

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The present paper erects two new genera of the family Saldidae to hold several species of shore-bugs described from the Patagonian and Andean regions of South America; describes a pair of scent glands of the seventh abdominal sternum not heretofore recorded in the literature; and makes new synonymic and other taxonomic changes. The illustrations were made by Arthur Smith, of the British Museum (Natural History), and by Patricia J. Hogue, of Arlington, Virginia.

Several years ago, while mounting saldids that had been killed and preserved in alcohol as netted in the field, I found occasionally a specimen with a pair (1 + 1) of digitiform structures protruded outward from the intersegmental suture of the seventh and eighth abdominal sterna and fully exposed (Fig. 1). Further study showed these structures to be scent glands situated in the seventh abdominal segment of both male and female specimens. In checking mounted material in my collection, I found now and then a specimen with these glands fully protruded and in plain view (Fig. 1, a).

In fresh specimens from the field and also in material preserved in alcohol, these glands can be readily thrust out by placing the saldid on its back and then pressing gently up and down on the abdomen with the tip of a pair of tweezers or the point of a lead pencil. The glands are fairly large, protrusile and retractile, and vary from creamy white to pinkish or reddish in color.

These paired scent glands have been found in species of the following genera: *Ioscytus*, *Saldoida*, *Teoleuca*, *Salda*, *Lampracanthia*, *Micranthia*, *Pentacora*, *Saldula*, and the two new genera, *Oreocora* and *Pelachoris*, described below. The

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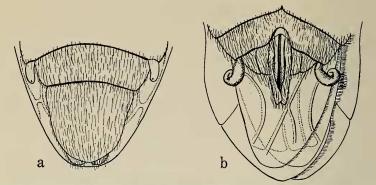


FIG. 1. Scent glands of 7th abdominal segment, protruded: a.— σ Ioscytus nasti Drake and Hottes; b.— \Im Pelachoris leucographa (Rimes).

other genera of saldids were not examined for these structures. In the case of the genus Saldula, the glands have been found in more than 50 different species distributed among all of the faunal regions of the world. The ventral aspect of a male of *Ioscytus nasti* Drake and Hottes (Fig. 1, a) and a female of *Pelachoris leucographa* (Rimes) (Fig. 1, b) are illustrated to show the size and position of the fully protruded scent glands. Illustrations (Figs. 2 and 3) are also included to portray the dorsal aspect of these two saldids.

Saldula pexa Drake (Stat. nov.)

Saldula hirsuta pexa Drake, 1950, Bull. Brooklyn Ent. Soc., Vol. 45, p. 5.

Numerous specimens from western United States and Mexico show that *pexa* is a valid species and not a variety of the European *hirsuta* (Reuter). I have numerous specimens from California, Arizona, and Mexico.

Saldula palustris (Douglas)

Salda palustris Douglas, 1874, Ent. Monthl. Mag., Vol. 9, p. 10. Saldula fernaldi Drake, 1949, Psyche, Vol. 56, p. 191. (Syn. nov.)

More specimens of the European *palustris* (Scott) make it necessary to suppress *fernaldi* Drake as a synonym. In addition to European specimens, I have many specimens of *palustris* from Canada, Alaska, and several states of the Rocky Mountain area and Pacific Coast.

Pelachoris, gen. nov.

Rather small, oblong. Head with three pairs of trichobothria, feebly convex; eyes very large, slightly converging anteriorly, with a few, tiny, inconspicuous hairs; ocelli small, feebly elevated, separated from each

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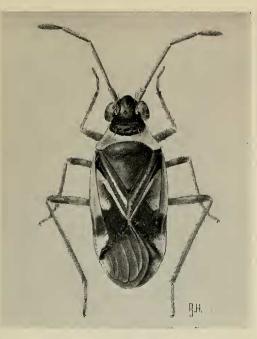


FIG. 2. Pelachoris leucographa (Rimes), J.

other by about the width of an ocellus, each from an eye by scarcely more than twice the diameter of an ocellus, placed just above a line connecting the antero-angles of ocular notches. Beak long, extending on second abdominal sternum. Antenna with segment I short and stout, II longest and slenderest; III and IV slightly swollen, subequal in length.

Pronotum trapezoidal, sharply narrowed anteriorly, with outer margins each forming straight lines, hind margin shallowly broadly excavated; callus strongly convex, transverse, short, extending sidewise almost to outer margins of pronotum, occupying about two-thirds of entire pronotum, with large discal fovea; hind lobe very short, finely punctate; explanate margins very narrow, feebly ridged on exterior margins. Scutellum large, triangular, transversely impressed near middle, basal width and median length nearly subequal to each other.

Hemelytra (macropterous) longer than abdomen, distinctly constricted on outer sides just in front of membrane; clavus sharply defined; corium with unbranched, median vein distinctly, subbasally notched on inferior side; embolium narrow, not separated from cuneus. Scutellum large, basal width and median length nearly subequal. Third connexival segments (on each side of abdomen of male) provided on anterior end with a row of four to six, short pegs followed by 15–20 fairly long, stiff hairs. Male parameres long, slender, arcuate, with a patch of hairs

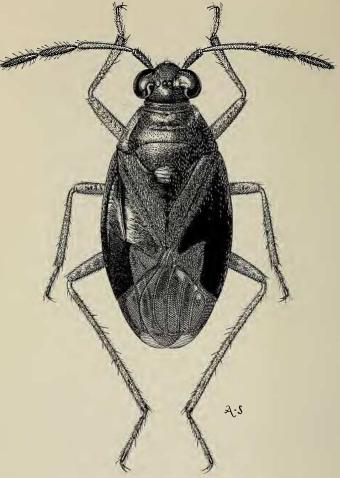


FIG. 3. Ioscytus nasti Drake and Hottes, Q.

near middle. Penis-thread coiled with one and a half rings. Female with hind margin of seventh abdominal sternum distinctly notched at middle. Legs long, slender, saltatorial, hind coxae very large.

Type species: Pentacora leucographa Rimes (Fig. 2), Australian Region.

This genus belongs to the group of genera that have the membrane of the macropterous form divided into five long cells. The brachypterous form is unknown.

Pelachoris, new genus, can be separated from Pentacora Reuter by the general habitus, callus (transverse and extending sideways almost to

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outer margins of pronotum), shallowly excavated hind margin of pronotum, deeply notched hind margin of seventh abdominal sternum in female (Fig. 1, a), and other structures mentioned in the generic description. Rimes (1951, Fig. 1, k) published a good figure of the male paramere. Attention is also called here to the fact that *P. salina* (Bergroth) is a typical species of the genus *Pentacora* and related to the American *P. sphacelata* (Uhler).

Pentacora sphacelata (Uhler)

Salda sphacelata Uhler, 1877, Bull. U. S. Geol. Surv., Vol. 3, p. 343.

- Salda rubromaculata Heidemann, 1901, Proc. Washington Acad. Sci., Vol. 3, p. 368. (Syn. nov.).
- Saldula sphacelata: Van Duzee, 1917, Univ. California Pub., Tech. Bull., Vol. 2, p. 44. (Catalog).
- Pentacora rubromaculata: Drake and Hoberlandt, 1951, Acta Ent. Mus. Nat. Pragae, Vol. 26, p. 5.
- *Pentacora sphacelata:* Drake and Hoberlandt, 1951, Acta Ent. Mus. Nat. Pragae, Vol. 26, p. 5. (Catalog).

The holotype (macropterous male, USNM type No. 483) is in fair state of preservation. It belongs to the genus *Pentacora* Reuter and the trivial names of *sphacelata* Uhler and *rubromaculata* Heidemann apply to the same species, the former having priority (syn. nov.). This is the farthest southern record of *sphacelata* in the Americas. The other South American species described as, or transferred to, *Pentacora* are being transferred to a new genus described below.

Oreokora, gen. nov.

Small to moderately large, oblong or ovate, dorsal surfaces of pronotum and hemelytra clothed with short pubescence, which is often extremely short, grayish or golden in color. Vertex wide (as wide or slightly wider than an eye); ocelli small, approximate or separated from each other by width of an ocellus, placed scarcely above an imaginary line connecting anterior angles of inner excavations of eyes; with usual three pairs of trichobothria. Pronotum wide, explanate margins moderately wide; callus large, swollen, not extending sidewise on explanate margins of pronotum, with large discal fovea; hind margin broadly excavated; scutellum large, median length and basal width about equal to each other, with a median, transverse impression. Rostrum extending on or a little beyond metasternum. Hemelytron with the usual subbasal notch on inferior side of median vein of corium.

Male: Abdomen with upper, front margin of third connexival segment (one on each side) furnished with a long row of small, rounded pegs (9–11 in *andensis*) followed within with a few short, stiff hairs. Penisthread slender, coiled two to three times. Parandria with the usual, paired, upright arms.



FIG. 4. Oreocora regilla (Drake), Q.

Female: Seventh abdominal sternum obtusely prolonged behind, without a median notch.

Type species: Acanthia chilensis Blanchard.

This new genus is composed of species described as members of the genera Salda, Saldula, and Pentacora. Although the membrane of the macropterous form is usually divided into five cells, individual specimens are occasionally found with four cells in one wing and five in the other, rarely with only four in both wings (cell number 5 absent). In the type series of O. regilla (Drake) (Fig. 4) one specimen has five cells in each membrane and the other two only four each, and the

abbreviated membrane of the brachypterous form has only three or four cells distinguishable, rarely five.

Oreokora chilensis (Blanchard)

Acanthia chilensis Blanchard, 1852 in Gay, Hist. Chile Zool., Vol. 7, Pl. 11, Fig. 15 (color). (Comb. nov.)

Salda chilensis: Reed, 1901, Rev. Chilena Hist. Nat., Vol. 5, p. 186, (Sep. p. 93).

Acanthia chilensis: Kirkaldy and Bueno, 1909, Proc. Ent. Soc. Washington, Vol. 10, p. 175. (List of American spp.)

Acanthia araucanica Kirkaldy, 1889, Rev. Ent. France, Vol. 18, p. 93.

A comparison of the types of *Acanthia chilensis* Blanchard (holotype, macropterous male, in Muséum National Historie Naturelle, Paris) and of *A. araucanica* Kirkaldy (macropterous type), collected by E. C. Reed, British Museum (Natural History), from Chile shows that these two species are inseparable from each other and thus synonyms, the former name having priority. I also have a few specimens of this species (Reed collection) taken with the type of *araucanica*. The membrane of the macropterous form is divided into five cells; brachypterous form is unknown.

Oreocora andensis (Distant) (Comb. nov.)

Acanthia andensis Distant, 1893, Trans. Ent. Soc. London, p. 93.

Pentacora bruesi Drake, 1949, Psyche, Vol. 56, p. 187, Pl. 14. (Syn. nov.)

A study of the type of *Acanthia andensis* Distant in the British Museum (Nat. Hist.) and that of *Pentacora bruesi* Drake in the Museum of Comparative Zoology (Harvard) show that these two trivial names apply to the same species, *andensis* having priority by many years. Other specimens of this species have also been seen from Peru.

Oreokora bergi (Haglund) (Comb. nov.)

Salda bergi Haglund, 1899 (Hem. part) in Svenska Magellanslanderna, 1907, Vol. 2 (9), pp. 173, 176, 179.

Salda argentina: Bergroth (not Berg, 1879), 1906, Wiener ent., zeit., Vol. 25, p. 7 (Error in identification).

Saldula lynchi (Drake and Carvalho), 1948, Rev. d'Entomologia, Brasil, Vol. 19, p. 476. (Syn. nov.).

Through the cooperation of Dr. E. Kjellander, Stockholm, I have been able to study the type specimen of *Salda bergi* from Patagonia. This species was described from a single, brachypterous female (thus, the holotype) which bears labels as follows: (1) "Gente Grande Bay," (2) "Tierre del Fuego," (3) "O. Nordenskiold," (4) "*Salda bergi* Hagl., type." The latter label is written in the handwriting of Haglund. The information on all labels is in accord with the data published in the original description. The following notes are based upon the holotype:

Brachypterous female: Color and markings as stated by Haglund in

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his description. Length 4.00 mm, width (transocular) 1.10 mm (across apex triangular process of pronotum) 2.25 mm, vertex (across ocelli) 0.50 mm.

Head with three pairs of long, erect, dark-fuscous trichobothria; vertex across ocelli and length of third antennal segment subequal to each other; vertex with a moderately large, transverse, tumid area at the base (just in front of collar); apex of front without transverse callosities. Rostrum very long, shiny, fuscous, extending between hind coxae. Antennae testaceous, clothed with short, setal-like hairs interspersed with a few very long hairs on each of last three segments. Segmental measurements: I, 26; II, 56; III, 42; IV, 44.

Pronotum broad, basal width three times median length with outer margins convexly narrowed anteriorly, hind margin widely excavated, basal width three times the median length; explanate margins wide, flavus; callus large, strongly swollen, not extending laterally on explanate margins, with the large discal fovea opened behind with a prominent sulcus, a small fovea on each lateral side of discal fovea; hind pronotal lobe narrow, slightly transversely rugulose, about one-third as long as collum.

Hemelytra wide, scarcely longer than abdomen, clavus distinct, corial veins not prominent; membrane abbreviated, composed of five, long cells. Male and macropterous form unknown.

For 80 years (Bergroth, 1879), Salda bergi Haglund has been erroneously treated as a synonym of S. argentina Berg (syn. of S. coxalis Stål). An examination of the type and three specimens of S. lynchi Drake from Punta Arenas (south Chile) shows that this species is inseparable from lynchi (new synonymy).

NEW COMBINATIONS

In addition to the taxonomic changes made in the above paragraphs, the following new combinations also are consummated: Acanthia rogeri Kirkaldy, Saldula sola Drake and Corvalho, S. doeringi Drake and Carvalho, Pentacora angusta Drake and Carvalho, P. bacayana Drake, P. perula Drake, P. amazona Drake, and P. regilla Drake to the new genus Oreokora Drake.

LIST OF SPECIES OF OREOKORA

1.	amazona (Drake), 1955	Peru
2.	andensis (Distant), 1893	Ecuador, Peru
	= bruesi (Drake), 1949, (syn. nov.)	
3.	angusta (Drake and Carvalho), 1948	Argentina, Chile

- 4. bergi (Haglund), 1899 _____ Argentina, Chile = argentina (Bergroth), 1897, (not Berg, 1879)
- = lynchi (Drake and Carvalho), 1948, (syn. nov.) 5. bacayana (Drake), 1955 _____ Equador
- 5. bacayana (Drake), 1955 Equador 6. chilensis (Blanchard), 1852 Argentina, Chile

= araucanica (Kirkaldy), 1899, (syn. nov.)

7.	doeringi (Drake and Carvalho), 1948	Argentina
8.	perula (Drake), 1955	Chile
9.	pillaona (Drake), 1955	Chile
10.	regilla (Drake), 1955	Chile
11.	rogeri (Kirkaldy), 1899	Chile
12.	sola (Drake and Carvalho), 1948, (comb. nov.)	Argentína